

**FIELD OF STUDY : INDUSTRIAL**

**OPTION : NETWORKS AND TELECOMMUNICATIONS**

**SPECIALTY : TELECOMMUNICATIONS**

**1- OBJECTIVES OF TRAINING**

This specialty trains senior technicians to ensure the implementation, administration and the maintenance of network or telecommunications equipment. Their skills in the different transmission technologies as well as their extensive knowledge of the protocols of the different communication networks allow them to design, in a group, network architectures or complex telecommunications facilities and to optimise them.

**2- SKILLS SOUGHT AFTER**

❖ **General skills**

- Self-employed, work together as a team ;
- Analyse, synthesise professional document (French, English) ;
- Oral and written business communication (French, English) ;
- Participate in / conduct an approach to the management of a project ;
- Know and exploit professional and institutional networks in the computer sectors.

❖ **Specific skills**

- Mastering telecommunications equipment ;
- Apply exploitation procedures ;
- Configure inverters, battery, solar panels and cables ;
- Master the technics of emission, transmission and reception of signals, images and sounds ;
- Install and configure hardware and software of networks and telecommunications systems ;
- Apply quality control ;
- Apply exploitation procedures ;
- Optimise the operation of network and the common protocols used ;
- Implement and administer networks ;
- Participate in the development of specifications and to contribute to the specifications of a network topology or installation of a telecommunications System, manage and control the evolution of such installation in choosing the equipment and the appropriate software ;
- Coordinate the rehabilitation of an installation after the incidents such as fire.

**3- CAREER OPPORTUNITIES**

- Servicing companies and manufacturing networks equipment ;
- Telecommunications operators and Internet service providers ;
- Controller of the information system of an enterprise ;
- Telephone installer ;
- Servicing companies and Computer Engineering.

#### 4- PROGRAM DURATION

For a period of two years, a set of theoretical and practical courses is administered to students with a view to obtaining a Higher National Diploma (HND) sanctioned by MINESUP.

#### 5- CONDITION FOR ADMISSION

**Direct registration on file study :**

- A hand written application addressed to the Director of SOUTH POLYTECH ;
- A complete registration form available on campus ;
- A photocopy of birth certificate ;
- A photocopy of A/L certificate ;
- Registration fees : 35,000 FCFA ;
- File study fees : free of charge ;
- Annual medical coverage: 5000 F CFA.

#### 6- PEDAGOGICAL APPROACH

- Lectures ;
- Practical work and personal work ;
- Immersion courses in the professions accompanied by a teaching body and company executives.

#### 7- EVALUATION TECHNIQUES

- Continuous monitoring for each lecture ;
- An exam session (oral or written) at the end of each semester organised according to the subjects registered for the semester ;
- Writing of an internship report defended in front of a jury at the end of the cycle ;
- National HND exam.

#### 8- ORGANISATION OF TEACHINGS

**• FIRST SEMESTER**

Code	Course title	Number of credits
TEL111	Engineering Maths 1	4
TEL112	Physics and Computer Science 1	5
TEL113	Electronic circuits 1	5
TEL114	Circuit Theory	3
TEL115	Telecommunications 1	5
TEL116	Computer Networks	5
TEL117	English and general accounting	3
<b>Total</b>		<b>30</b>

• **SECOND SEMESTER**

Code	Course title	Number of credits
TEL121	Engineering Maths II	4
TEL122	Physics and Computer Science II	5
TEL123	Electrical installation	4
TEL124	Telecommunications II	5
TEL125	Antenna and spatial telecommunication	4
TEL126	Electronic circuits II	5
TEL127	Economies and Enterprise Organisation (EEO) and French	3
<b>Total</b>		<b>30</b>

• **THIRD SEMESTER**

Code	Course title	Number of credits
TEL231	Engineering Maths III	5
TEL232	Physics and Computer Science III	4
TEL233	Satellite and high frequency transmission	4
TEL234	High data rate transmission and computer networks II	5
TEL235	Signal Processing	4
TEL236	Electronic circuits III	5
TEL237	Enterprise creation and civics and moral education	3
<b>Total</b>		<b>30</b>

• **FOURTH SEMESTER**

Code	Course title	Number of credits
TEL241	Engineering Maths IV	4
TEL242	Physics and Computer Science III	5
TEL243	Minor project	4
TEL244	Telecommunications III	4
TEL245	Electronic circuits IV and computer networks III	4
TEL246	Internship	6
TEL247	General economies and Law	3
<b>Total</b>		<b>30</b>